## **ABSTRACT**

The invention provides methods and oligonucleotide primers for assaying *Brassica napus* plants for the presence or absence of mutations that confer resistance to imidazolinone herbicides. Specifically, the methods and primers of the invention are useful for detecting the PM1 mutation of the *B. napus AHAS1* gene and the PM2 mutation of the *B. napus AHAS3* gene.